USAF CONCEPT OF OPERATIONS

for the

JOINT SIMULATION SYSTEM (JSIMS)

Version 1.0

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19990108 032

AQI 99-04-0546

INTERNET DOCUMENT INFORMATION FORM

A . Report Title: USAF Concept of Operations for the Joint Simulation System (JSIMS) Version 1.0

B. DATE Report Downloaded From the Internet   1/7/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):   Air Force Agency for Modeling & Simulation (AFAMS)
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D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
DTIC-OCA, Initials: VM_ **Preparation Date**: 1/7/99__

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.

DTIC QUALITY INSPECTED 8

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1. CONOPS Purpose

The purpose of the Air Force Concept of Operations (CONOPS) for the Joint Simulation System (JSIMS) is to describe how JSIMS will be used and maintained to support Air Force and joint training events. Actual application techniques and methods will depend on the final JSIMS design. This CONOPS shall evolve as the JSIMS evolves.

2. JSIMS Description

JSIMS is a distributed simulation system consisting of land, maritime, and air and space objects in a composable, joint synthetic mission space. JSIMS is being developed through cooperative, mutually-interdependent simulation development programs to include the National Air and Space [Warfare] Model (NASM) Program. The goal of JSIMS is to build a single, integrated simulation to support joint and service training. Development of service-agency objects, (such as those provided by NASM), joint objects, object interactions, and the core infrastructure will occur in a coordinated, concurrent manner to ensure successful integration. HQ USAF/XOC is the Executive Agent (EA) for the air and space domain within JSIMS and is meeting its JSIMS responsibilities through the NASM program. The NASM domain includes the full spectrum of AFDD 1 mission areas.

The NASM program provides the air and space objects of JSIMS for Air Force, joint, and combined training audiences at all echelons from the Joint Task Force (JTF) commander down to the wing level, and for Joint Force Air Component Commander (JFACC) staff training activities. JSIMS supports exercises over extended geographical distances. JSIMS interoperates with operational command, control, communications, computer, and intelligence (C4I) systems and associated support systems to enable training audiences to use their operational C4I systems to receive, process, and disseminate information.

JSIMS supports all phases of a computer-assisted exercise (i.e. pre-exercise, exercise execution, and exercise evaluation). The system is used by the exercise control staff to plan, setup, and manage the exercise. The system is also used by the exercise control staffs for exercise review, which may take place during exercise execution and in post-exercise evaluation.

JSIMS is developed, deployed, operated, and maintained cost-effectively and efficiently. JSIMS has been developed using modern computer technologies, software engineering, and programming techniques with open system interfaces to provide a more maintainable system with a longer life cycle. All mission application software developed or used for JSIMS is non-proprietary. Where practical JSIMS uses off-the-shelf hardware, software, validated algorithms, and existing databases.

The Air Force is responsible for initial beddown of JSIMS at three sites: Korea Air Simulation Center (KASC), Osan AB Korea; Warrior Preparation Center (WPC), Einsiedlerhof AS, Germany; and the Battlestaff Training School (BTS), Hurlburt AFB, FL. JSIMS will also be deployed at four additional joint sites: Joint Warfighting Center, Joint Training and Analysis Simulation Center, Korea Battlefield Simulation Center, and National Defense University.

3. Security

JSIMS is composable to support multiple classifications from unclassified to Top Secret (including special compartmented categories). JSIMS supports two levels of classification simultaneously as a minimum. Security labeling and control of data is based upon the security classification level (e.g. Unclassified, Confidential, Secret, and Top Secret, etc.) as well as caveats (NATO Releasable, Releasable to UK/CAN, etc.).

Support systems must be protected from unauthorized access. JSIMS follows security regulations governing the use of computer systems to prevent unauthorized access and ensure that protection from computer viruses is in place.

JSIMS software is unclassified to the extent practical. Software modules that contain classified data and algorithms are written and integrated with the remainder of the JSIMS software in a manner that permits the remainder of the software to be used, stored, and generally treated as unclassified. JSIMS can be readily integrated into a site's physical facility without requiring any additional physical-security enhancements over those required for the current exercise composition of the Joint Training Confederation (JTC). JSIMS-resident data shall be classified no higher than Secret. Top Secret and compartmented information only reside within the intelligence development programs of JSIMS at Initial Operational Capability (IOC). However, given the requirement for mission rehearsal, JSIMS will be composable to support an event at higher than Secret.

4. Exercise Phases

Exercises and training events, and the way specific training sites prepare for them varies. In general each exercise includes three phases: Pre-Exercise, Exercise Execution, and Exercise Evaluation. The size and scope of each phase varies at each site, and with each training event.

4.1 Pre-Exercise

The pre-exercise phase consists of three major activities: exercise preparation, pre-exercise testing, and training.

4.1.1 Exercise Preparation

Exercise Preparation includes those activities performed prior to the exercise to develop necessary scenarios and databases. An event using JSIMS requires a planning staff usually consisting of members from both the training audience and a simulation or training center. This staff uses the training objectives to develop a scenario, establish exercise configuration and generate training plans.. There are capabilities within JSIMS to help with scenario development, number/size of control cells, and After-Action-Reviews (AARs). Exercise preparation tasks include:

a.   Defining theater area of operations, maps, terrain files and databases. Creating a scenario is automated as much as possible, including obtaining data from external, real-world C4I systems and sources such as, but not limited to, Defense Intelligence Agency's Multi-Spectral Force Deployment data, the JSIMS modeling and simulation resource repository, and DoD mapping data.

b.   Defining initial force composition and locations.

c.   Developing the basic force movements and events that shall constitute the scenario.

d.   Developing weather scenario data to be used during the exercise.

e.   Developing the intelligence scenario containing scenario build-up information.

f.   Conducting pre-exercise academic training for exercise participants.

g.   Initializing the various simulation functions.

h.   Defining communications networks.

i.   Establishing scenario initial conditions, such as external events, weather, and intelligence messages.

j.   Defining automated air defense options and establishing initial conditions such as the rules of engagement and rule sets to be used by the C2 system.

k.   Defining data-collection requirements and customizing displays and reports for exercise and post-exercise analysis.

l.   Defining message preparation templates and message routing requirements.

m.   Verifying site security accreditation to run classified databases from Secret to Top Secret (including compartmented information).

This phase requires close coordination with the training participants, remote sites that may be participating in the exercise and other agencies interested in the exercise. Most of this coordination is currently accomplished through a lengthy series of meetings that may start up to one year before the exercise. There is great interest in reducing the amount of time and travel required to plan an exercise. JSIMS plays a major role in streamlining the preparation phase by automating portions of the exercise lifecycle.

Training organizations use JSIMS to develop the initial input data for an exercise. JSIMS imports real-world data from C4I systems such as the Global Command and Control System and Theater Battle Management Core System (TBMCS) to minimize the effort involved in creating the simulation database. JSIMS is capable of exporting and importing data in formats that can be used by other systems, primarily C4I systems, that are used in an exercise. Many C4I systems have their own representations of the campaign being played. Using JSIMS to develop operational databases, derived from the exercise databases, is extremely useful in reducing exercise preparation time. JSIMS sensor models and/or controller inputs through the data preparation toolset allow operational data to be fogged so that the training audience is required to deal with a perceived view of the campaign, rather than the "ground-truth" within the databases. This toolset also provides an automated means of assessing the consistency of the C4I and simulation databases thereby minimizing disconnects.

Development of the databases necessary to support execution is a large component of exercise preparation. JSIMS rapidly imports data from a variety of sources, and provides the capability to rapidly review, quality check, and edit imported data. The capability exists to easily adapt JSIMS input data mechanisms to meet changes in data structures, or develop new data input mechanisms. Use of standard formats such as Digitized Terrain Elevation Data, Multi-Spectral Force Deployment Data, and other government, foreign, and commercial standardized data sources help significantly decrease the amount of time and resources devoted to data preparation.

4.1.2 Pre-Exercise Testing

The pre-exercise testing phase comprises an end-to-end systems test to ensure that all site hardware, software, and network links are working as designed. Operational C4I systems and displays are also checked to ensure they are operating as required to support exercise execution.

4.1.3 Training

The pre-exercise training phase consists of academics, seminars, and hands-on positional training for exercise players and control-cell augmentees. This training emphasizes players' and control-cell augmentees' familiarity and proficiency with

equipment and procedures used during the exercise. Pre-exercise training ends with a "mini-exercise" (usually the day prior to START EX) of limited duration and acts as a dress rehearsal for the actual exercise.

4.2   Exercise Execution

The execution phase is the actual exercise event. During this period the exercise is conducted and the training audience experiences real-world, hands-on training. All organizations and forces external to the training audience are represented by response cells. JSIMS is designed to reduce, and possibly eliminate, the manpower required in these response cells by simulating the behavior of forces and force element outputs of the represented organizations.

a.   Exercise control staff interaction with the simulation varies from purely autonomous operation using algorithms within JSIMS to human control over the behavior of objects. JSIMS moves information to the Air Operations Center (AOC) and other training locations through operational channels, as control- and response-cell personnel develop messages to provide free-text reports "from the field" to the training audience.

b.   JSIMS is capable of maintaining a fixed relationship to clock time during training, running faster or slower than real time as required to meet the objectives of an exercise.

c.   During execution, JSIMS:

1) accepts and responds appropriately to user input with appropriate range and error checking;

2) creates and maintains a time-ordered log of all events occurring during execution and at periodic or controller-initiated checkpoints, including state saves, to adequately restart the simulation;

3) automatically collects and stores on-line all data which the technical controllers have selected for collection without degrading performance;

4)   executes at the speed selected by the technical controllers;

5) provides for discontinuous time changes including moving forward or backward in simulation time;

6) communicates with external simulation systems virtual simulators, live platforms, and operational C4I systems as specified in the simulation configuration to create a joint synthetic battlespace;

7) provides users the ability to define and store report formats;

8) provides Deficiency Report and Clarification Report capabilities and traceability to training and execution objectives; and

9) provides a simulation-analysis capability that has minimal effect on model performance and includes the collection of data (statistics) on model events, message traffic, queues, etc. This capability shall be used to help troubleshoot problems encountered during exercise execution, and ultimately support AAR during Exercise Evaluation.

d. Technical controllers and augmentees shall monitor, modify, and direct the exercise in the following areas to ensure training objectives are being met: sides, aggregation and deaggregation, behavioral representations, ground truth, simulation time, and simulation control.

4.3   Exercise Evaluation

Exercise results are reported, reviewed, and feedback is provided to the training audience during the Exercise Evaluation phase. The exercise control staff uses JSIMS to develop summary statistics and reports, briefings, and other material to summarize the conduct of the exercise, evaluate performance of staff, and develop lessons learned. An important part of this exercise evaluation is playback of portions of the exercise, using data captured by JSIMS to evaluate processes leading to decisions and graphically portray the exercise results. This capability is available at IOC. By FOC additional capability will show how decisions affect results, thereby supporting mission rehearsal and doctrine development.

The data extracted while JSIMS operates is extremely important in supporting review and analysis activities during both exercise execution and evaluation. It provides an authoritative source for tracing and evaluating the decision-making process used by the training audience in executing a campaign, and providing necessary feedback to the audience.

The data captured during JSIMS runs is vast and must be tailored for exercise evaluation . JSIMS has tools that allow exercise controllers to easily design reports, define data to be extracted, and display results graphically.

Each center must document areas where JSIMS does not meet a training need at the end of an exercise. These reports shall be formally documented and staffed through the Air Force Agency for Modeling and Simulation (AFAMS) for future incorporation into JSIMS. AFAMS shall conduct Users Working Groups (UWG) to evaluate and prioritize required JSIMS improvements. AFAMS represents the AF on the JSIMS Requirements Control Board and supports UWG recommendations.

5. Exercise Characteristics

JSIMS representations of the battlefield may vary greatly depending on the exercise objectives. For some exercises, the entire opposing-force structure and associated behaviors, as well as neutral and other non-allied forces within the theater, are simulated. JSIMS simulates the actual warfighting doctrine and tactics, tactical command and control and tactical communications used by combatant units, during engagements and movement of forces. JSIMS accommodates different configurations to allow various degrees of human control in directing the planning of air operations, developing orders, and commanding forces throughout headquarters and wing command-and-control hierarchy.

JSIMS interacts with a variety of operational systems by receiving information from systems, such as TBMCS, implementing orders, and reporting results back through real-world communications to operational C4I systems. JSIMS represents the capabilities of various reconnaissance, surveillance, and intelligence-gathering sensors, and data streams into operational data feeds. JSIMS uses operational mechanisms and protocols to drive live communication terminals and networks. JSIMS facilitates the development and transmission of text-based messages. This is accomplished either manually or automatically depending on significant scenario events. JSIMS interoperates with High-Level Architecture (HLA) compliant virtual simulators and live platforms/systems to create a joint synthetic battlespace.

6. Joint Exercises

The NASM program provides JSIMS the Air Force-recognized model of air and space power in joint exercises. The concept of operation for JSIMS support to joint exercises is similar to that for Air Force centric-training. However, there may be significant differences based on the focus of training objectives, relative level of participation of the services, and different roles and requirements for control and player cells.

7. Infrastructure Support and Interoperability

Considerations for infrastructure support and interoperability are described in the following paragraphs.

7.1   Command, Control, Communications, Computers, and Intelligence

JSIMS interoperates with service-desiganted C4I systems (existing and planned). Anticipated interface requirements are listed below. Other interfaces may also be required.

> Air Force Mission Support System (AFMSS)
> AMC Deployment Analysis System (ADANS)
> Combat Integration Capability
> Combined Mating and Ranging Planning System
> Command and Control Information Processing System (C2IPS)
> Defense Message System
> Deliberate and Crisis Action Planning and Execution System
> Global Command and Control System (GCCS)
> Global Combat Support System (GCSS)
> Global Decision Support System
> Joint Deployable Intelligence Support System
> Joint Engineering Estimation Planning System
> Stand Alone Tactical Operational Message Processing System
> Tactical C4I
> TADIL, (*e.g.* A,B,J)
> Tactical ELINT Processor
> Tactical Information Broadcast Service (TIBS)
> Tactical Receive Equipment
> Tactical Related Applications
> TBMCS (Theater Battle Management Core Systems)

7.2   Transportation and Basing

Existing simulation centers, training sites, educational facilities, and command centers are primary host sites for JSIMS. These sites are located in foreign countries, as well as in CONUS. JSIMS equipment can be moved easily by air, land, and sea transportation, whether military or commercial.

7.3   Standardization, Interoperability, and Commonality

All JSIMS components comply with DoD and USAF requirements for standardization and interoperability. All JSIMS interfaces with Air Force C4I systems meet Air Force requirements for interoperability certification. JSIMS uses best commercial practices to

the maximum extent possible, and considers standardization and interoperability, where possible, with NATO and other allies. To the maximum extent possible, JSIMS uses standard external interfaces. All interfaces are in accordance with (IAW) the DoD Joint Technical Architecture (JTA) and other approved interoperability standards.

7.4 Mapping, Charting, and Geodesy (MC&G) Support

JSIMS uses standard digital products, software, and services of the National Imagery and Mapping Agency (NIMA). At Initial Operational Capability (IOC), JSIMS meets the resolution of Digital Terrain Elevation Data (DTED) and Digital Feature Analysis Data Level 1, and Interim Terrain Data (IDT) and Vector Product Format (VPF) IDT.

7.5 Environmental Support

JSIMS requires environmental support in terms of accurate environmental (meteorological, oceanographic, space, terrain) data for use during exercise scenarios. Unique support requirements will be drawn from CINCs' integrated priorities lists.

8. Integrated Logistics Support (ILS)

JSIMS is primarily supported by a two level maintenance concept utilizing a Contractor Logistics Support (CLS) strategy. The equipment is designed for organizational level maintenance by Air Force personnel, contractor civilian support, or manufacturers representatives utilizing standard Air Force maintenance practices, with no system specific support equipment required. Depot level maintenance will be performed by factory personnel in accordance with a COTS acquisition approach.

Initial JSIMS hardware requirements are being programmed as a central AF purchase for WPC, KASC, and BTS. Communications connectivity shall be a user-site responsibility. The NASM Program Management Office (NPMO), JSIMS Integration and Development (I&D) contractor, and NASM development contractor will install JSIMS software, test the system, help conduct exercises to validate the model on site, and train local site personnel. The JSIMS I&D and NASM developmental contractors provide follow-on support through a central technical support facility.

AFAMS leads a NASM Beddown Support Team (BST) composed of personnel from AFAMS, the NPMO, the NASM development contractors, and the JSIMS Deployment Logistics Training (DLT) Integrated Product Team (IPT) (DLT IPT). This team assists user-site ILS planning, hardware/software installation, and JSIMS train-the-trainer training for controllers, operators, and maintainers. Each site to receive JSIMS requires a tailored fielding plan to accommodate the assimilation of JSIMS by site personnel. Site

facility infrastructure, currently configured for optimum use by legacy models, may require adaptation to match JSIMS configuration requirements.

More detailed logistics support requirements associated with JSIMS fielding is provided in the *JSIMS Transition Plan*, the *JSIMS Logistics Support Plan (JLSP), NASM Operation and Maintenance (O&M) Plan*, and the *NASM Transition and Fielding Plan.*

8.1 Availability

JSIMS is capable of operating 24 hours a day with a system availability of at least 90%. JSIMS supports training exercises whose duration ranges from 1 to 14 days, 24 hours per day.

8.2 Maintainability

The JSIMS Operational Requirements Document (ORD) specifies the resumption of operations no later than one hour (threshold) after fault detection, with an objective of 15 minutes.

8.3 Maintenance Planning

Maintenance planning includes all activities for the life cycle support IAW Air Force Instruction (AFI) 10-602, *Determining Logistics Support and Readiness Requirements*.. There are two levels of maintenance: organizational and depot. JSIMS maintenance uses existing technical orders, procedures, and best commercial practices

(1)   Organizational Level Maintenance: The contractor's Logistics Support Analysis (LSA) and Level of Repair Analysis (LORA) differentiates between software and hardware failures, and determines the appropriate action and repair location. On-equipment maintenance conducted at this level includes fault isolation and troubleshooting, repair of prime mission equipment (generally limited to replacement of faulty Line Replaceable Units), preventive or scheduled maintenance and testing, and software diagnostics.

(2)   Depot Level Maintenance: Off-equipment maintenance will be accomplished at the site repair facility, software support facility, manufacturers facility, or contractor facility. Off-equipment maintenance performed at the depot level includes technical assistance and active maintenance beyond the responsibility and capability of organizational maintainers; bench check, repair, or overhaul of unserviceable components; service engineering of modifications; repair and calibration of specialized test equipment; modifications that require additional man hours, facilities, or equipment not available at the organizational level; software diagnostic systems; and emergency on-site support.

8.3.1 Operational & Maintenance Planning Concept

The NASM BST assists in integrating maintenance planning for the user sites. Maintenance planning encompasses the planning and analysis associated with establishing requirements for the life-cycle support of JSIMS. Maintenance planning constitutes a sustaining level of activity commencing with the development of the maintenance concept and logistics supportability analyses.

Contractor Logistics Support (CLS) is the primary logistics support strategy for JSIMS software maintenance. The period preceding Full Operational Capability (FOC) shall be supported by the JSIMS I&D and NASM development contractors. CLS for post-FOC JSIMS support at Air Force sites will be determined by the NPMO in conjunction with user sites. Hardware will be maintained in accordance with each training center's local procedures. Equipment warranties will be utilized when appropriate.

8.3.2 Hardware Support

HQ USAF/XOC is responsible for funding for the procurement and installation of JSIMS hardware at WPC, KASC, and the BTS. Other AF sites desiring JSIMS must provide unit funding for equipment and installation. User sites are responsible for funding specified upgrades of their system hardware, operations and maintenance, and exercise support. User sites are also responsible for costs associated with software licenses, maintenance and warranty agreements after initial agreements have expired. The JSIMS Program Office (JPO) and NPMO are responsible for specifying hardware architecture and system capabilities required to support JSIMS operations. The NASM BST will coordinate deployment activities such as site surveys, site preparation and installation planning, software installation and training.

8.3.3 Software Support

The JSIMS software maintenance support concept focuses on developing contractor-operated JSIMS and NASM Support Centers to integrate software support activities, conduct configuration management and maintain upgrades to JSIMS C4I interfaces. Locations of the contractor support facilities have not been determined.

The NASM and JSIMS Support Centers support user sites through help-desk and field-representative assistance. Centrally funded on-site NASM contractor support is planned for WPC, KASC, and BTS through FOC. Funding for on-site support after FOC will be a user-site responsibility.

8.3.4 Support Equipment (SE)

JSIMS minimizes SE for maintenance, requires only standard test equipment, and includes fault isolation capabilities to diagnose failures at a level commensurate with the final support concept. A Logistics Support Analysis will identify support equipment requirements, and an assigned National Stock Number will identify all SE

approved for use with JSIMS. SE will be centrally procured and on site prior to fielding JSIMS. The user site is responsible for management and control of all support equipment.

8.4   Manpower and Personnel

No additional manpower or increase in skill level requirements is authorized for JSIMS. A primary goal of JSIMS is reduction of personnel needed to prepare and execute an exercise. By FOC the JSIMS goal is to reduce the number of training support personnel required for a 1998 JTC, JTF-level exercise by two-thirds, while providing an equivalent level of training functionality. Personnel reductions are accomplished by automating many of the manpower-intensive functions typical of existing simulations. Most savings achieved result from sharp reductions in the time and effort required during the design, planning, and preparation stages of the joint exercise life cycle for a JSIMS-supported exercise or event.

8.5   Training and Training Support

The NASM Training Program Development and Management Plan (TPDMP) details the NASM contractor's plan to perform training analysis; to design, produce and validate the courseware; and to conduct training at Air Force training centers on the JSIMS system. Contractor training specialists, with support engineering assistance, provide a training plan that encompasses all of the processes, procedures, techniques, training devices and equipment required to operate and support JSIMS. The NASM development contractor provides train-the-trainer training at Air Force training centers for operators, controllers and maintainers as specified in the *NASM TPDMP*.

The NASM development contractor provides Air Force JSIMS training to WPC, KASC, and the BTS in three phases: development (present to IOC), enhancement (IOC to FOC), and maintenance (beyond FOC) phases. Other AF sites desiring training must coordinate their requirements with AFAMS. Unit funding for training at additional sites may be required. AF site training support is addressed in more detail in the Air and Space appendix to the *JSIMS Education, Training, and Technology (JETT) Plan, The NASM Training Program Development and Management Plan (TPDMP)* and *NASM Training Analysis.*

JSIMS training is being developed IAW concepts identified in the *JETT Plan..* This plan presents a broad view of education and training initiatives within JSIMS to support a computer-simulated environment. The training and training-support goal is to efficiently and effectively use technology in instruction and administration to implement training for JSIMS. This training provides system operators, controllers, and maintainers the capability and capacity to meet challenges of the JSIMS technology.

8.6   Computer Resources Support

This area of ILS refers to all computer equipment and accessories, software, program tapes and disks, databases and peripherals, necessary for the operation and

maintenance of the JSIMS. Additional computer resource support information will be published in the *JSIMS JLSP*.

Computer system software development and support is as follows:

a) Pre-IOC (Development phase): Software development and support is the responsibility of the JSIMS I&D and NASM development contractors.

b) IOC - FOC (Enhancement phase): JSIMS I&D and NASM development contractors are responsible for software configuration management through FOC. Any "fixes" are accomplished in accordance with the *JSIMS Configuration Management Plan (JCMP)*.

c) FOC and beyond (Maintenance phase): Updates are normally annual. The Development Agents provide their updates for integration into the system IAW the *JCMP*.

Hardware and software integration tests will be conducted as follows:

a) Pre-IOC: Computer system tests are conducted as part of the development process to substantiate the ability to meet the total software program requirements addressed in the JSIMS System Segment Specification and Build Plans. The requirements for System Tests are listed in the JSIMS Test and Evaluation Master Plan (TEMP).

b) IOC - FOC: System software tests are accomplished in accordance with the System Test Plan (STP). Each DA tests its software before it is delivered for integration into the system. The system is tested IAW the TEMP. Pre-exercise testing is the responsibility of user sites.

c) FOC and beyond: System software tests are accomplished for each release in accordance with the Release Plan (a new document is developed for each release, similar to system build plans). Testing is based on the complexity of the software changes incorporated. Follow-On Operational Test and Evaluation is accomplished according to the TEMP. Pre-exercise testing is the responsibility of user sites.

8.7   Supply Support

Supply support encompasses all actions required to identify and obtain spares and repair parts necessary to support readiness objectives. Supply support is the responsibility of each user site. Total life-cycle contractor support (LCCS) is the planned supply-support concept. Sites will coordinate, procure, and fund for this support through their normal command funding lines. LSA data will be used by the JSIMS I&D and NASM development contractors to determine required supply support/provisioning actions including recommended hardware to be spared and quantities and locations of spares to meet availability requirements.

8.8 Facilities

JSIMS will be installed in existing facilities and sites. Individual user sites are responsible for planning facility requirements, with assistance from the JSIMS DLT IPT or NASM BST as appropriate. Sites provide and maintain the facility and infrastructure to support JSIMS IAW the JSIMS architecture and Joint, Service, and Agency plans. The purpose of the plans is to ensure a suitable facility infrastructure is available to support deployment and operations based on the JSIMS and NASM Transition Plans for the life cycle of JSIMS.

8.9 Technical Data

The JSIMS JPO shall develop a publications/technical data concept defining requirements and initial planning for technical data development. This concept shall address the entire scope of technical data required to support JSIMS, as well as any requirements for incorporating the Computer-aided Acquisition Logistics Support and Enterprise Information Management System. The JSIMS I&D contractor is responsible for developing JSIMS manuals and integrating domain technical data efforts. The NPMO and NASM contractor will coordinate Air and Space technical requirements with the JSIMS I&D contractor as appropriate.

8.10 Packaging, Handling, Storage and Transportation (PHS&T)

JSIMS shall support units deployed worldwide. JSIMS equipment is transportable via air, land, and sea transportation, whether military or commercial. Commercial reusable shipping containers are required for the JSIMS components that are supporting transportable segments. JSIMS PHS&T requirements are documented in the JSIMS Hardware Requirements Specification and JSIMS System/Sub System Design Document (SSDD). Procurement of shipping containers is a site responsibility.

9. Schedule Considerations and Beddown Dates

At JSIMS IOC, NASM will provide the Air Force's air and space representations to satisfy JSIMS IOC requirements. At IOC, JSIMS supports training Unified Combatant Command staffs, Joint Task Force Commander and staff, and Component Commander and staff at the strategic-theater and operational levels of war. At FOC, JSIMS provides training for the strategic-national to tactical levels of war including JFACC team training involving the AOC.

9.1 AF Beddown of JSIMS

Beddown at WPC, KASC, and BTS is anticipated to occur between FY00 and 02. Anticipated initial beddown is planned to occur at BTS in FY00 to support JSIMS Collaborative Event #3 scheduled to occur in Oct CY00. JSIMS Collaborative Event #3 will allow users to interact with JSIMS running in a distributed manner. JTASC will host the system and interact with several remote sites, including BTS, while running the full set of JSIMS lifecycle applications, mission space objects, and C4I interfaces that will be available at IOC. Beddown will occur at KASC and WPC through FY 01 and 02 in manner which supports smooth transition from the JTC to JSIMS. Beddown at BTS will continue to evolve in a manner which supports full transition from the Air Force Suite of Models (AFSOM) to JSIMS.

APPENDIX A

ACRONYM LIST

AAR	After Action Review
AFAMS	Air Force Agency for Modeling and Simulation
AFMSS	Air Force Mission Support System
ADANS	AMC Deployment Analysis System
AOC	Air Operations Center
BST	Beddown Support Team
BTS	Battlestaff Training School
C2TIC	Command and Control Training and Innovation Center
C2IPS	Command and Control Information Processing System
CCB	Configuration Control Board
CLS	Contractor Logistics Support
CMP	Configuration Management Plan
CONOPS	Concept of Operations
DA	Development Agent
DLT	Deployment Logistics Training
DoD	Department of Defense
EA	Executive Agent
FOC	Full Operational Capability
GCCS	Global Command and Control System
GCSS	Global Combat Support System
I&D	Integration and Development
IAW	In accordance with
ICS	Interim Contractor Support
IOC	Initial Operational Capability
IPT	Integrated Product Team
JETT	JSIMS Education, Training, and Transition Plan
JFACC	Joint Force Air Component Commander
JLSP	Joint Logistics Support Plan
JPO	JSIMS Program Office
JSIMS	Joint Simulation System
JTC	Joint Training Confederation
JTF	Joint Task Force
KASC	Korean Air Simulation Center
LCCS	Life Cycle Contractor Support
MC&G	Mapping, Charting, and Geodesy
MOOTW	Military Operations Other Than War
NASM	National Air and Space (Warfare) Model
NPO	NASM Program Office
ORD	Operational Requirements Document

PDSS	Post Development Software Support
PHS&T	Packaging, Handling, Shipping and Transportation
RFT	Ready For Training
SCS	Site Contractor Support
SE	Support Equipment
TBMCS	Theater Battle Management Core System
TEMP	Test and Evaluation Management Plan
TIBS	Tactical Information Broadcast Service
TPDMP	Training Program Development and Management Plan
UWG	Users Working Group
WPC	Warrior Preparation Center